LAWYERS TITLE INSURANCE CORP.
v.
BUREAU OF LAND MANAGEMENT

IBLA 89-382 Decided December 3, 1990

Appeal from a decision of Administrative Law Judge Harvey C. Sweitzer, rejecting the Bureau of Land Management's omitted lands survey of certain lands in the State of Wisconsin. ES-30592.

Affirmed.

1. Surveys of Public Lands: Omitted Lands

The general rule regarding lands patented according to an official plat of survey showing a meander line along a lake or other body of water is that the actual shore-line rather than the meander line is the boundary, the meander line being intended to ascertain the approximate acreage in the fractional subdivision. An exception to this rule arises where the lands are omitted from the official plat of survey because of gross error or fraud in establishing the meander line.

2. Administrative Procedure: Burden of Proof--Evidence: Burden of Proof--Evidence: Sufficiency--Rules of Practice: Appeals: Burden of Proof--Surveys of Public Lands: Omitted Lands

Where BLM attempts to establish that lands were omitted from an officially filed original survey as a result of gross error or fraud, it must prove by clear and convincing evidence that the original survey was grossly in error. However, it need only demonstrate by a preponderance of the evidence that the omitted land was land in place at the time of the original survey and was similar to the surveyed land at that time.

3. Surveys of Public Lands: Omitted Lands

Analysis of whether a particular omitted lands case falls within the general rule or the gross error exception requires the application of various judicially evolved factors to the specific facts of the

> case. The three specific factors pertinent to this analysis include: (1) the size of the parcel involved, including the size of the parcel as shown by the original survey, the relative size of the new area disclosed by the more recent survey, and the magnitude of the original surveyor's error as measured by the amount of unsurveyed land in the surrounding area as a whole, with the greatest weight being given to the relative size of the omitted tract; (2) the intent of the surveyor; and (3) the nature and value of the land at the time of survey.

APPEARANCES: Mary Katherine Ishee, Esq., and Shelly L. Russell, Esq., Office of the Solicitor, U.S. Department of the Interior, Washington, D.C., for the Bureau of Land Management; 1/ John R. Decker, Esq., and Jeffrey L. Abraham, Esq., Milwaukee, Wisconsin, for Lawyers Title Insurance Corporation; Kevin D. Mathews, Esq., Milwaukee, Wisconsin, for intervenors. 2/

OPINION BY ADMINISTRATIVE JUDGE HARRIS

BLM has appealed from a March 27, 1989, decision of Administrative Law Judge Harvey C. Sweitzer, rejecting its omitted lands survey of lands adjacent to the eastern shore of Crawling Stone Lake (a.k.a. Big Crawling Stone Lake) within sec. 21, T. 40 N., R. 5 E., fourth principal meridian, Vilas County, Wisconsin. 3/ Judge Sweitzer based the rejection on his conclusion that the acreage excluded from the original survey had not been omitted as the result of gross error or fraud on the part of the original surveyor. The Judge's decision was rendered after the hearing ordered in Lawyers Title Insurance Corp., 92 IBLA 162 (1986) (Lawyers Title).

1/ The Lac Du Flambeau Band of Lake Superior Chippewa Indians was granted amicus curiae status by this Board in an order dated Oct. 24, 1986, and counsel appeared at the hearing on its behalf in support of the position of the Bureau of Land Management (BLM); however, no appearance on its behalf has been made on appeal.

2/ The intervenors are individuals who claim title to certain land at issue in this appeal. They include William Yeschek, as trustee of the estate of Mary Carley, Donald Genrich, Wahlen Doran, Ann Pleotis, James Cooper, Betsy Behnke, Madeline Perko, Raymond Gregg, Harold Anderson, William Joyce, Marlyce Jirovetz, Lawrence Lee, John Ouse, Ed Shield, Alvin Drymalski, William Moller, Hank Doran, Harold Jelly, Darold Wegner, Dean Wegner, Herbert Hansen, and Michael Hansen. Lawyers Title Insurance Corporation (Lawyers Title) issued policies of title insurance covering the disputed land.

3/ By the Treaty of Sept. 30, 1854, the Lac du Flambeau Indian Reservation was created, the boundaries of which were to be later agreed upon or fixed under the direction of the President. see United States v. Bouchard, 464 F. Supp. 1316, 1370-71 (W.D. Wisc. 1978). The land in question lies within those boundaries as later established.

I. Procedural and Factual Background

In November 1864, James McBride, Deputy Surveyor, under a joint contract with B. F. Woods, surveyed the subdivisional and meander lines of the township containing Crawling Stone Lake. The plat and field notes filed on January 17, 1865, and approved on January 27, 1865, depicted lots 1, 2, 3, and 4 (containing 21.50, 43.80, 24, and 56 acres, respectively) as lying along the record meander line in sec. 21. Between 1899 and 1905, each lot was separately patented as part of an individual Indian allotment (Judge Sweitzer's Decision (ALJ Decision) at 2-3).

After receiving an application for survey filed by the Bureau of Indian Affairs in 1972, BLM issued special instructions in April 1973 requiring the preliminary examination and conditional survey of alleged omitted lands in sec. 21, including the reestablishment of the original meander line, and an examination of the excluded area to determine whether it existed "as upland-in-place on May 29, 1848, when Wisconsin gained statehood, and at all subsequent dates." The instructions further required that if the lands were determined to be erroneously omitted, an omitted lands survey should be conducted (Exh. R-3).

In April and May 1973, BLM conducted the field work for the dependent resurvey and the omitted lands survey. The plat based on this survey identified 99.42 acres of land lying adjacent to lots 1, 2, 3, and 4, which had been omitted from the original survey of sec. 21 (see Appendix A). The omitted land was designated as lots 5, 6, and 7, containing 45.74, 33.91, and 19.77 acres, respectively. 4/ Following rejection of the acceptance of the survey on two occasions in 1975, the Chief, Cadastral Survey Examination and Approval Staff, in his capacity as Acting BLM Director, accepted the survey on December 5, 1979, thus concluding that the omission of the lands from the original survey constituted gross error. 5/

On September 1, 1982, BLM published notice of its intent to file the survey plat. 47 FR 38638 (Sept. 1, 1982). Lawyers Title and others filed objections to the filing. In response to these, BLM stayed the filing of the plat, pending final resolution of the objections. 48 FR 2071 (Jan. 17, 1983). However, on April 23, 1983, without resolving all the objections, BLM filed the plat in the BLM Eastern States Office. See Lawyers Title, supra at 165-67. Upon learning of this action, Lawyers Title filed an appeal. BLM treated that filing as a protest and dismissed it. Lawyers Title appealed to this Board, requesting a hearing.

In Lawyers Title, we vacated BLM's filing of the plat and after discussing the legal principles guiding the issue of whether the lands in question were, in fact, erroneously omitted from the 1865 survey, we concluded that a hearing was appropriate to enable the parties to elicit

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4/ Lots 5 and 6 were claimed as public lands and lot 7 was determined to be more than 50-percent swampland and, therefore, state land in accordance with the Swamplands Act of Sept. 28, 1850, 9 Stat. 519.

5/ See Lawyers Title, supra at 164-65, for a more detailed history of the acceptance of the survey.

facts necessary to the proper resolution of the case, including evidence concerning the character and value of the lands at the time of the original survey. Lawyers Title, supra at 169-73. 6/ Accordingly, we referred the case for a hearing, noting that BLM bore the ultimate burden of persuasion on the issue of whether the lands had been erroneously omitted. 7/

On April 13, 1987, Administrative Law Judge Michael L. Morehouse, who was initially assigned to the case before his retirement, conducted a hearing in this case. BLM failed to appear and Lawyers Title presented its unopposed case-in-chief. Following requests from BLM and amicus to reopen the hearing, Judge Sweitzer held a hearing from May 3-6, 1988, in Milwaukee, Wisconsin. At this hearing, BLM presented its case-in-chief, followed by Lawyers Title's rebuttal. BLM and Lawyers Title filed extensive posthearing submissions. 8/

II. Judge Sweitzer's Decision

In his decision, Judge Sweitzer identified the sole issue before him as whether land included in proposed lots 5, 6, and 7 was omitted from the 1865 survey on the basis of gross error or fraud, and discussed the applicable law. He recognized that the purpose of a meander line is to define the sinuosities of the body meandered and to permit calculation of the approximate acreage in the land surveyed, and that the general rule states that the boundary of a parcel of land along a meandered water body is the actual shoreline, rather than the meander line (ALJ Decision at 8). He explained that an exception to that rule exists where lands were omitted from the original survey because of gross error or fraud in establishing the meander line; in such cases, the boundary is fixed at the meander line. He noted the three major judicially created factors which must be analyzed to determine whether gross error or fraud caused the omission of the land from the original survey: (1) the size of the parcel involved; (2) the intent of the original surveyor; and (3) the nature and value of the land at the time of the original survey. Id. at 9-10, citing Lawyers Title, supra at 170-72. He also stressed that mere error does not make the lands erroneously omitted, and that BLM had the burden of showing gross error.

The Judge next focused on the standard of proof required in omitted lands cases. After reviewing the relevant judicial and Board decisions, he concluded that BLM bore the burden of establishing its case by clear and convincing evidence. He distinguished the Board's approval of the preponderance of evidence standard in cases in which private individuals

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6/ We will refer to the survey conducted in 1864 and approved in 1865 as the "1865 survey." Similarly, the survey performed by BLM in 1973 and accepted in 1979 will be called the "1979 survey."

7/ BLM moved for reconsideration of the Board's decision. We denied that motion by order dated Oct. 24, 1986, and also rejected Lawyers Title's request to expand the hearing to include an inquiry into BLM's 1979 reversal of position on the filing of the plat.

8/ We will refer to the transcripts of the April 1987 and the May 1988 hearings as Tr. I and Tr. II, respectively. Exhibits submitted by Lawyers Title and BLM will be prefaced by the letters "R" and "G," respectively.

dispute a Government resurvey. Id. at 10. He determined that a showing of gross error was equivalent to a showing of constructive fraud, and indicated that proof of fraud, actual or constructive, traditionally has required a higher standard of proof. Judge Sweitzer noted that the Department's own surveying instructions recognized the heightened standard by requiring "a convincing showing" of gross error in omitted lands cases, citing both the 1947 and 1973 editions of the Manual of Instructions for the Survey of the Public Lands of the United States (Manual). Id. at 11.

Judge Sweitzer further found that requiring clear and convincing evidence comported with relevant Supreme Court authority holding that proof by clear and convincing evidence is appropriate where particularly important individual interests or rights are at stake. He characterized the present case as the

> administrative equivalent of a judicial suit to cancel title to some 99 acres of land nearly 125 years after the original survey was accepted and nearly 90 years after the land was thought to have passed from the public domain into private ownership. Individual property rights and the importance of being able to rely upon official patents are just such interests that require a higher standard of proof to overcome.

Id. at 11.

Judge Sweitzer cited with approval case law emphasizing that, except in the most egregious circumstances, strong policy considerations weigh against the application of the gross error exception, because century old surveys are naturally inaccurate in some respects and the stability of titles dependent upon Government patents is immensely important. Id. at 12. Based on his review of legal precedent and policy considerations, the Judge concluded that BLM must meet the heightened clear and convincing standard of proof when challenging an original survey on the basis of gross error or fraud.

After clearly and concisely summarizing the evidence presented by the parties at the hearing, which we adopt and attach to our decision as Appendix B, Judge Sweitzer addressed the initial question of whether the land at issue was actually land in place at the time of the original survey and concluded:

> In the final analysis, it is unlikely that anyone can prove or disprove the omitted parcel's existence in 1865 or that it appeared then as it appears currently. It is more likely than not that a significant amount of land existed in place between Mr. McBride's meander line and the shore of Crawling Stone Lake in 1865 (see Tr. [II] 563). BLM has failed, however, to present evidence sufficient to conclude that the 99.42 acres surveyed in 1973 existed in 1865. It may be that that area existed as land in place in 1865 or that the area was larger or smaller.

Id. at 26.

Although Judge Sweitzer determined that BLM had failed to establish that the 99.42 acres existed in 1865, he examined whether McBride's failure to include that parcel in the original survey stemmed from fraud or gross error. Because Judge Sweitzer found that the evidence demonstrated that it was "more likely than not that Mr. McBride actually ran the meander line on the ground and attempted to define the sinuosities of the shore," he concluded that there was no actual fraud in the original survey. Id.

Judge Sweitzer next considered the question of gross error. He explained that the concept of gross error is a relative one, dependent on the facts and circumstances of each individual case, and requiring a balancing of those facts and circumstances with interpretive doctrines and policy considerations. He found that, although McBride erred in meandering the lake shore, the evidence demonstrated that a body of water did exist at or near the meander line, that a meander line was intended, and that McBride attempted to survey the land. Accordingly, he concluded that McBride had intended his meander line to approximate the shore. Id. at 27.

Since some courts have refused to apply the gross error exception when the costs of a precise meander line would be disproportionate to the value of the omitted land at the time of the original survey, Judge Sweitzer next discussed the value of the lands excluded from the 1865 survey. He rejected BLM's contention that the value of the lands to the Government determined whether they should have been surveyed, finding that the legal test of value was objective, not subjective. After noting that the evidence indicated that the omitted land consisted of approximately 30- to 33-percent swamp or overflowed land with scattered stands of aspen and some elevated land, he continued:

> In the final analysis, BLM presented no reliable evidence sufficient to support the conclusion that a dense stand of timber existed on the omitted land at the time of the original survey. n9 In addition, BLM's expert [Kopach] admitted that the omitted land was not fit for cultivation in 1864 and that it would not be fit now unless substantial improvements were made (Tr. II 469-70). Finally, that the lake front property may be valued today because of its real estate potential is irrelevant to a determination of its value in 1864. The evidence thus shows the land to have been wild, remote, and of little value as of the time of the original survey.

Id. at 28.

The size of the omitted parcel and the magnitude of the error in excluding it were analyzed by Judge Sweitzer within the framework of the three relative aspects enunciated in Lawyers Title, supra at 170-71: (1) the size of the parcel shown by the original survey; (2) the relative size of the new area disclosed by the more recent survey; and (3) the

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9/ The principal value of land in Wisconsin in 1865 was for timber, particularly pine. See ALJ Decision at 13.

magnitude of the original surveyor's error measured by the amount of unsurveyed land in the surrounding vicinity. He found that sec. 21, as surveyed by McBride, embraced 305.30 acres; the total area of lots 1, 2, 3, and 4, adjacent to the omitted land, contained 145.30 acres; and the new parcel surveyed in 1973 included 99.42 acres. He calculated that the understatement of land within sec. 21 was 24.6 percent, 10/ and the understatement of the adjacent patented parcels was 40.6 percent. 11/ He further determined that there was no other significant amount of land excluded from the original survey of the surrounding township (ALJ Decision at 28-29).

Judge Sweitzer distinguished the present case from the case of Brothertown Realty Corp. v. Reedal, 200 Wisc. 465, 227 N.W. 390 (1930), appeal dismissed, 281 U.S. 771 (1930) (Brothertown), cited by BLM as controlling. In Brothertown, the court found an understatement of 42 percent to be gross error, and BLM contended that because the error in the present case was so close to the understatement in Brothertown, gross error must also be found here.

The Judge carefully analyzed Brothertown, asserting that he discovered several flaws in BLM's position. He noted that although only a single lot containing 26.20 acres adjacent to 19.37 acres of omitted land was at issue in Brothertown, resulting in a 42.5-percent understatement, the court's decision was influenced by factors outside the area in dispute. Those factors, including the fact that the original survey, as platted, omitted 103.28 acres of continuous timbered upland, departing from the actual shoreline by as much as 160 to 180 rods, compelled the court to conclude that the surveyor had not actually run the meander line on the ground. Based on the text and figures reported in Brothertown, Judge Sweitzer calculated that 103.28 acres of omitted land between the lake shore and the original three lots constituted a 54.2-percent understatement. He further found that the Brothertown survey departed from the shore by up to 2,970 feet (180 rods), that the unsurveyed land included a peninsula coverning approximately 40 acres, and that the meander line contained only three angle points. Id. at 30-31.

10/ He arrived at the percentage understatement by dividing the omitted acreage (99.42 acres) by the sum of the surveyed area and the omitted acreage (e.g., 305.30 acres plus 99.42 acres for a total of 404.42 acres for sec. 21 as a whole).

11/ Judge Sweitzer indicated that apparently McBride did not actually survey lots 1 through 4 as separate parcels, but rather their areas were calculated from the plat he returned, using his meander line as the boundary for calculating the acreage in each lot. Consequently, he stated his inclination would be to compare the size of the omitted parcel with the area of all of the land surveyed by McBride in sec. 21, and to conclude that the 24.6-percent understatement of land within the section was not so great as to constitute gross error. He recognized, however, that many courts, including those relied upon by the parties, based their analysis on a comparison between the omitted land and the adjacent parcels, and thus felt constrained to analyze the present case in that context (ALJ Decision at 29).

In comparison, the Judge noted that McBride's error amounted to a 40.6-percent understatement, and that even if the omitted acreage was increased by an additional 13 acres, posited by BLM to have existed in 1865, the understatement would still be only 43.6 percent. Additionally, the 1865 survey contained 13 angle points, departed from the shore by less than 2,000 feet, and omitted a peninsula encompassing only approximately 15 acres. Finally, the Judge emphasized that the unsurveyed land here was approximately 30-percent swamp with scattered timbering, in contrast to the body of timbered upland omitted in Brothertown. Id. at 31-32.

In conclusion, Judge Sweitzer summarized his findings:

> Although I have no doubt that there was land in place in 1865 between the meander line and the eastern shore of Crawling Stone Lake that Mr. McBride left unsurveyed, BLM has failed to establish by any reliable evidence the amount of such land in place in 1865. There is thus no basis to determine the magnitude of Mr. McBride's error and it is impossible to conclude that his survey constitutes gross error or fraud.
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> Nevertheless, even assuming that either 99.42 acres or 112.42 acres (BLM's largest asserted area) existed as land in place, there is no evidence of fraud in the placement of the meander line. Mr. McBride evidently intended to meander the eastern shore of Crawling Stone Lake. The remoteness of the land in question, its wilderness character and its relative worthlessness, mitigate against finding gross error. The size of the parcel unsurveyed is not so large as to cause concern, nor is the relative magnitude of error. I find that the facts of this case are more closely akin to those in [United States v.] Lane [260 U.S. 662 (1923)] and [United States v.] Zager, [338 F. Supp. 894 (E.D. Wisc. 1973) (Zager)] rather than Jeems Bayou [Fishing & Hunting Club v. United States, 260 U.S. 561 (1923)] and Brothertown. The [1979] survey of alleged omitted lands ought to be and hereby is rejected.

(ALJ Decision at 32).

III. Arguments on Appeal

On appeal, BLM challenges three aspects of Judge Sweitzer's decision. First, BLM contends that the Judge erroneously required BLM to prove gross error by clear and convincing evidence, rather than by a preponderance of the evidence, and asserts that the preponderance standard has been customarily applied in Departmental proceedings since the issuance of Bender v. Clark, 744 F.2d 1424 (10th Cir. 1984). BLM next finds error in Judge Sweitzer's determination that BLM failed to establish the amount and character of the disputed lands at the time of the original 1865 survey. Finally, BLM objects to the Judge's conclusion that an omission of 99.42 acres from an original survey in northern Wisconsin, resulting in an understatement of 40.6 percent, does not constitute gross error.

In response, Lawyers Title 12/ argues that Judge Sweitzer's decision should be upheld. It asserts that both court decisions and Departmental policy require clear and convincing evidence to set aside original surveys in omitted lands cases, and further contends that the clear and convincing standard applies to each element of BLM's case. Lawyers Title claims that BLM has failed to show that all of the omitted parcel was land in place at the time of the original survey, and that BLM offered insufficient evidence to support its other factual contentions. According to Lawyers Title, McBride's intent to depict a meander line and his actual running of the lines on the ground, as well as the wild, remote, and valueless character of the omitted land in 1865, demonstrate that no gross error was committed in the original survey. Lawyers Title emphasizes that the Judge's analysis completely refutes BLM's position that a parcel containing less than 100 acres and representing only a 40.6-percent understatement shows gross error. 13/ We will discuss the issues raised by BLM and Lawyers Title in greater detail below.

IV. Applicable Law

[1] A meander line is the traverse of the margin of a permanent body of water. Donald W. Hoar, 81 IBLA 74, 75 (1984). Such lines are run not to designate boundary lines, but to define the sinuosities of the bank or shoreline and to ascertain the quantity of land attributed to that tract. Id.; see 1973 Manual at 93-94. Thus, the general rule regarding lands patented according to an official plat of survey showing a meander line along a lake or other body of water has long been that the actual shoreline, rather than the meander line, is the boundary. Hardin v. Jordan, 140 U.S. 371, 380 (1891); Railroad Co. v. Schurmeir, 74 U.S. (7 Wall.) 272, 286-87 (1868); Greene v. United States, 274 F. 145, 149 (5th Cir. 1921); Zager, supra at 988; Lawyers Title, supra at 170; Utah Power & Light Co., 6 IBLA 79, 86, 60 I.D. 397, 400 (1972). Exceptions to the rule arise where lands are omitted from the official plat of survey as a result of gross error or fraud in establishing the meander line. 14/ Jeems Bayou Fishing & Hunting Club v. United States, supra; Lee Wilson & Co. v. United States, 245 U.S. 24 (1917); Producers Oil Co. v. Hanzen, 238 U.S. 325 (1915); Mitchell v. Smale, 140 U.S. 406 (1891); United States v. Otley, 127 F.2d 988 (9th Cir. 1942); Lawyers Title, supra; Utah Power & Light Co., supra at 86-87, 60 I.D. at 400. See generally Morgenthaler, Surveys of Riparian Real Prooperty: Omitted Lands Make Rights Precarious, 30 Rocky Mt. Min. L. Inst. 19-1 (1984). If the lands were omitted because of gross error or fraud, then the meander

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12/ Lawyers Title and intervenors filed a joint answer to BLM's statement of reasons. For simplicity, we will refer to Lawyers Title and intervenors jointly as Lawyers Title.

13/ Alternatively, Lawyers Title argues that the Judge's decision should be affirmed on the ground that the Government should be estopped from invalidating the 1865 survey because of affirmative misrepresentations and misconduct. Because we affirm the Judge on other grounds, we need not reach this issue.

14/ Another exception exists where the facts and circumstances disclose the Government's intention to limit a grant to the actual meander line. See Utah Power & Light Co., supra at 87, 60 I.D. at 400.

line becomes the boundary of the patented parcels, and the acreage between that boundary and the actual shore is public land. Jeems Bayou Fishing & Hunting Club v. United States, supra; Mabel M. Farlow, 30 IBLA 320, 84 I.D. 276 (1977).

Section 7-77 of the 1973 Manual currently in effect defines erroneously omitted lands as "lands, not shown on the plat of the original survey, which were excluded from the survey by some gross discrepancy in the location of a meander line. The unsurveyed land typically lies between the actual bank of a lake, stream, or tidewater and the record meander line." 1973 Manual at 172-73; see Lawyers Title, supra at 169-70. The 1947 Manual, which was in effect when the field work for the 1979 survey was performed in 1973, characterizes erroneously omitted lands in similar terms in section 511. 1947 Manual at 509.

Section 513 of the 1947 Manual delineates the process necessary to determine whether lands have been erroneously omitted from an original survey:

> The first thing to be established, where the principle of erroneous omission is to be set up, is to show affirmatively that the area was land in place at the date of the original subdivision of the township * * * so that if found similar to the surveyed lands the usual inference that the official survey was correct may be set aside, and the conclusion substituted that the land should have been covered by that survey; but, before looking upon a discrepancy as one constituting erroneous omission, or an omission in the contemplation of the controlling decisions on the subject, a convincing showing is needed on the fact that the representations of the original plat and field notes are grossly in error. [Emphasis in the original.]

1947 Manual at 368.

Section 7-80 of the 1973 Manual contains similar requirements:

> If land is to be regarded as erroneously omitted from survey, it must first be shown affirmatively that the area was land in place at the date of the original subdivision of the township. Then, if the land is similar to the surveyed lands, the usual inference that the official survey was correct may be set aside, and the conclusion may be substituted that the land should have been covered by that survey. However, a convincing showing is needed that the representations of the original plat and field notes are grossly in error. [Emphasis in the original.]

1973 Manual at 173.

V. Standard of Proof Analysis

BLM does not dispute that it bears the ultimate burden of persuasion in this case. See Lawyers Title, supra at 173 n. 9. BLM also apparently concedes that, prior to the Tenth Circuit's ruling in Bender v. Clark,

supra, and this Board's decision in Peter Paul Groth, 99 IBLA 104 (1987), the Department and the courts required a clear and convincing showing to overturn an officially filed survey. See BLM's Reply at 4. BLM argues, however, that, consistent with those two authorities, it now only needs to prove gross error by a preponderance of the evidence.

BLM quotes with approval the statements in Bender v. Clark, supra at 1429, that the traditional standard in civil and administrative proceedings, the preponderance of the evidence standard, applies, except where the type of case and the sanctions or hardship imposed require a higher standard, such as when especially important individual rights and interests are at stake, like the potential deprivation of individual liberty, citizenship, or parental rights. See BLM Statement of Reasons (SOR) at 2. It notes that in Stoddard Jacobsen, 85 IBLA 335 (1985), the Board applied the preponderance standard to challenges to dependent resurveys not officially filed, and that in Peter Paul Groth, supra, the Board extended the preponderance standard to challenges to officially filed dependent resurveys. It argues that, since the preponderance of the evidence standard has been approved in dependent resurvey cases, it should also be employed in omitted lands survey cases.

BLM acknowledges Judge Sweitzer's conclusion that the interests at stake in omitted lands cases, including individual property rights and the importance of reliance on official patents, are the type of interests requiring a higher standard of proof, but contends that these same rights are often involved in dependent resurvey cases, as well. BLM also asserts that in dependent and independent resurveys and in omitted land surveys, it is exercising the Secretary's authority to determine what lands have been or ought to be surveyed. It questions the Judge's reliance on the constructive fraud element invoked in omitted lands surveys, arguing that, although characterized as constructive fraud, that finding is merely a determination of an unacceptable margin of error in the survey in light of all the circumstances, not a finding of actual fraudulent intent on the part of the surveyor. 15/

BLM further challenges Judge Sweitzer's attempt to distinguish Peter Paul Groth, on the ground that the present case involves BLM's burden in challenging an original survey, not, as in Groth, a private party's burden in attempting to show error in a BLM resurvey. BLM argues that the Judge did not explain why BLM, in exercising the Secretary's authority to determine and survey omitted lands, should automatically

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15/ BLM cites United States v. 295.90 Acres of Land, 368 F. Supp. 1301 (M.D. Fla. 1974), aff'd, 510 F.2d 1404 (5th Cir. 1975), as support for its contention that the utilization of the preponderance of the evidence standard in omitted lands cases is not without precedent (SOR at 5). We note that the court, in addition to stating that it had not placed any importance on the burden of proof (id. at 1307 n.7), held that the excluded lands had not been erroneously omitted from the original survey, and cited with approval a Supreme Court decision finding that the importance of stability of titles based on Government patents demands proof producing conviction. Id. at 1311.

be required to meet a higher standard of proof than would a private appellant. BLM asserts that no distinction should be made between an original survey and a resurvey since after a resurvey has been officially filed and accepted, it is as fully binding on the Department and the public as is a filed and accepted original survey.

In any event, BLM suggests, Judge Sweitzer's determination that it bore the burden of proving gross error by clear and convincing evidence did not alter the requirements of 1947 Manual and 1973 Manual that it need only show affirmatively that the omitted land was land in place in 1865 and that it was similar to the surveyed land at that time. BLM defines "affirmative showing" as proof by a preponderance of the evidence. BLM contends that the distinction set out in the Manuals between the types of proof needed to show that the land was in place and similar to the surveyed land (affirmative) and that the original survey was grossly in error (convincing) is completely logical. The finding that the omitted land existed and was similar is a preliminary, lesser conclusion which, according to BLM, does not alter the legal position of any party claiming interest in the land. Only the gross error conclusion, BLM opines, determines legal rights to the land, and, traditionally, has required the higher, convincing showing. Furthermore, BLM asserts, proving the land's existence and similarity at the date of the original survey by clear and convincing evidence would be almost impossible in the majority of omitted lands cases since the original surveys were completed prior to this century, and the party challenging those surveys must rely on evidence created at a much later date. Thus, BLM submits that the distinctions should be applied, and that it need only prove the existence of the omitted land and its similarity to the surveyed land by a preponderance of the evidence, even if it is required to demonstrate gross error by clear and convincing evidence.

In response, Lawyers Title argues that both court decisions and Departmental policy as expressed in the Manuals mandate that BLM present clear and convincing evidence to set aside original surveys in omitted lands cases. It notes that, among the cases cited by the court in Bender v. Clark, supra at 1429, as illustrative of the types of cases requiring the clear and convincing standard of proof, is Sea Island Broadcasting Corp. v. FCC, 627 F.2d 240 (D.C. Cir. 1980), cert. denied, 449 U.S. 834 (1980), which applied that standard where important economic interests, i.e., license revocation tantamount to a loss of livelihood, were at stake.

Lawyers Title describes the issue in omitted lands cases as whether the exception to the general rule should be applied to allow the Government to claim title to the omitted land. It cites United States v. 295.90 Acres of Land, 368 F. Supp. 1301 (M.D. Fla. 1974), aff'd, 510 F.2d 1406 (5th Cir. 1975), for the proposition that:

> The exception to the rule, after all is just that - an exception. Strong policy considerations are aligned against its application except in the most egregious circumstances. Century old surveys are bound to be inaccurate in some respects, and "... the immense importance of stability of titles dependent upon

> [Government patents] demand [sic] that suit to cancel them should be sustained only by proof which produces conviction."

368 F. Supp. at 1310-11, quoting Wright-Blodgett Co. v. United States, 236 U.S. 397, 403 (1915).

Lawyers Title agrees with Judge Sweitzer's determination that Peter Paul Groth, supra, does not control here because that case involved a private party's burden in challenging an officially filed resurvey. In the present case, not only does BLM have the burden of showing that the original survey was grossly in error, but, Lawyers Title contends, the courts and the Manuals specifically apply the clear and convincing burden of proof in omitted lands cases, and not in other types of dependent or independent resurveys.

Lawyers Title further asserts that the clear and convincing standard should be applied to each element of BLM's case, including whether the land existed at the time of the original survey and whether it was similar to the surveyed land at that time. It argues that affirmative proof is not necessarily the equivalent of proof by a preponderance of the evidence, but may also mean clear and convincing evidence. It contends that the convincing showing required by the Manuals to prove gross error "applies by force of logic to the question of whether allegedly 'omitted' land was in place at the time of the original survey" (Answer at 7).

[2] We agree with Judge Sweitzer that BLM must establish that the original survey was grossly erroneous by clear and convincing evidence. The vast majority of courts, including the Supreme Court, have required a heightened standard of proof in omitted lands cases. See, e.g., Hardin v. Jordan, supra at 400 ("extraordinary proof"); Jeems Bayou Fishing & Hunting Club v. United States, supra at 564 ("conclusively show"); United States v. Otley, supra at 995 ("evidence which commands respect, and * * * produces conviction"); Snake River Ranch v. United States, 395 F. Supp. 886, 900 (D. Wyo. 1975), aff'd, 542 F.2d 555 (10th Cir. 1976) ("clear and convincing"). Strong policy considerations favor the application of the clear and convincing standard when the Department attempts to set aside an officially approved and filed survey as grossly erroneous. If an original survey is set aside, patents issued based on that survey for land presumed by the patentee to be riparian will no longer convey any riparian rights. See Mitchell v. Smale, supra at 412. Such actions also adversely affect the stability of titles dependent upon Government patents. See United States v. 295.90 Acres of Land, supra. See also Morgenthaler, supra at 19-47 through 19-48 (suggesting that clear and convincing proof must be required before interference with the rights of a patentee may be permitted).

Our decision in Peter Paul Groth, supra, does not control here. In this case, the Department challenges its own earlier action. Individual rights have been established in reliance on the Government's original, approved, and filed survey which was binding upon the Department, as well as private individuals, when filed. Since the Government created the rights it now endeavors to limit, there is nothing inherently unfair in holding it to a higher standard of proof than that required of a private party challenging a Government resurvey. Furthermore, in both the 1947

and 1973 Manuals, the Department has imposed upon itself the more rigorous, clear and convincing standard when determining whether lands have been omitted from an original survey as a result of gross error. The Department clearly has the authority to establish the standards it must meet in such cases, and BLM has not convinced us that it should be allowed to ignore the express requirements of the Manuals. 16/ In any event, even if we were to apply the preponderance of the evidence standard in this case, we would nevertheless find that BLM has failed to prove gross error by this lesser standard of proof.

We do agree with BLM, however, that it need only show by a preponderance of the evidence that the omitted land was land in place at the time of the original survey, and that it was similar to the surveyed land at that time. The distinction established in the Manuals between the affirmative proof required for these preliminary findings, and the convincing showing needed to establish gross error is fully logical. The evidence needed to establish the existence and character of omitted lands becomes less accessible as time elapses between the original survey and the challenge to its validity:

> Eyewitnesses to conditions on those dates become more scarce. Soil tests and on-site inspections become less reliable indicators of conditions a century or more before. Flood control projects make it impossible to know how land and water would have interacted at the time of the survey. Often, courts can only speculate about the conditions of terrain, climate and wilderness that might have faced surveyors. Aerial photos can tell little of conditions that existed long before the lands were ever photographed from the air.

Morgenthaler, supra at 19-56 (quoted with approval in ALJ Decision at 25). See Wackerli v. Morton, 390 F. Supp. 962, 967 (D. Idaho 1975) ("The proof concerning the character and terrain of the omitted lands as it appeared in 1877 is of necessity less than certain."). Given these realities, BLM need only establish these initial findings by a preponderance of the evidence.

IV. Gross Error Analysis

The parties argue extensively over whether Judge Sweitzer erred in concluding that, while it was more likely than not that a significant

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16/ This holding is consistent with Stoddard Jacobsen v. BLM (On Reconsideration), 103 IBLA 83, 85-86 (1988), aff'd, Downer v. Hodel, CA No. 88-513-HDM (D. Nev. Oct. 12, 1989), in which we held that "the proper standard for BLM to apply in the course of a resurvey is to consider a corner existent (or found) if such a conclusion is supported by substantial evidence." In that case, BLM had consistently interpreted the Manual as requiring only substantial evidence in determining a corner to be found (id. at 86 n.7), and prior Departmental and judicial authority, as well as treatises on surveying, had agreed that the substantial evidence standard applied in such a situation. In this case, BLM admits that the Department has historically required convincing evidence to establish gross error and that there is judicial precedent which applies this standard as well.

amount of land existed in place between the original meander line and the actual shore in 1865, BLM had failed to present sufficient evidence to conclude that the 99.42 acres surveyed in 1973 existed in 1865. Despite this finding, the Judge nevertheless based his gross error analysis on the assumption that at least 99.42 acres of land had been omitted from the original survey and was similar to the surveyed land in 1865. Under these circumstances, we find it unnecessary to resolve these factual disputes, and will base our analysis of whether gross error occurred on these same factual predicates.

[3] In our decision referring this case for a hearing, we recognized that analyzing whether a particular case falls within the general rule or the gross error exception requires the application of various judicially evolved factors to the specific facts of the case. Lawyers Title, supra at 170, and cases cited therein. We adopted the analytical framework elucidated in United States v. 295.90 Acres of Land, supra at 1308-09, which identified three specific factors pertinent to this analysis: (1) the size of the parcel involved, including the size of the parcel as shown by the original survey, the relative size of the new area disclosed by the more recent survey, and the magnitude of the original surveyor's error as measured by the amount of unsurveyed land in the surrounding area as a whole, with the greatest weight being given to the relative size of the omitted tract; (2) the intent of the surveyor, i.e., did he intend the meander line to delineate a body of water (based upon which riparian rights would be created) or did he not even attempt to survey the contested land; and (3) the nature and value of the land at the time of survey to determine whether the cost of establishing a more precise meander line would have been wholly disproportionate to the then value of the omitted acreage. Lawyers Title, supra at 170-72, and cases cited therein. Judge Sweitzer applied each of these factors to the specific facts of this case, and concluded that the failure to include the omitted lands in the original survey did not constitute gross error. See ALJ Decision at 26-32.

A. Intent of the Surveyor

On appeal, BLM faults Judge Sweitzer's conclusions that McBride intended to meander the actual shoreline, and that the excluded land was wild, remote, and of little value. 17/ BLM does not allege that McBride actually intended to defraud the Government; rather it argues that there is no reasonable explanation for McBride's error in meandering the shore-line. It contends that the evidence it offered tending to show that McBride did not attempt to meander the true shoreline, including the fact that while McBride designated several angle points along his purported meander line, he failed to describe any of the significant topographical features at these angle points, reinforce the conclusion that McBride's

17/ As noted above, the Judge based his gross error assessment on the assumption that 99.42 acres of land were omitted from the original survey, resulting in an understatement of 40.6 percent. BLM, of course, does not object to the use of these numbers, but it does criticize Judge Sweitzer's determination that a 40.6-percent understatement does not constitute gross error. See discussion infra.

meander line was fictitious (SOR at 15-16). BLM further asserts that surveying the land at issue here would not have been unusually difficult, given the topography of the area, and notes that McBride failed to mention any such surveying difficulties in his field notes. Id. at 24. BLM indicates that McBride ignored a large peninsula without justification, and questions Judge Sweitzer's determination that, except for the peninsula, McBride's meander line approximates the actual contour of the shore. BLM finds this failure to survey the peninsula especially suspicious in light of the fact that McBride surveyed other, smaller peninsulas around the lake with great accuracy, and contends that McBride completely failed to comply with his surveying instructions. Id.

In response, Lawyers Title argues that the Judge correctly found that McBride was present and actually ran the meander line. It proffers several explanations for the errors in the original survey. It notes that there were an extremely large number of errors in surveying lakes and streams at the time of the original survey and cites various map exhibits (R-7 through R-14) as depicting examples of such errors. Furthermore, Lawyers Title explains, the shorelines of many lakes were overfallen with trees and brush which made traversing difficult, resulting in surveyors running their lines some distance from the shore. According to Lawyers Title, surveyors considered the land valuable only for timber, and since marshes were devoid of timber, they ran their lines around any marshy strip or bayou they encountered and depicted the marshes as water. Peninsulas and points frequently escaped the attention of surveyors, it contends, because they were not considered valuable, and, it notes, McBride omitted various peninsulas in his survey work in an adjacent township. See Answer at 14-15. Thus, Lawyers Title asserts that McBride's errors were reasonable, and that he intended to meander the actual shoreline of Crawling Stone Lake.

We agree with Judge Sweitzer that the evidence supports the finding that McBride attempted to run the meander line on the ground and intended to define the sinuosities of the shore. McBride's meander line contains 13 angle points, two of which (angle points 12 and 13) actually lie in the lake. Clearly, a body of water existed and exists at or near the place indicated on the original plat, and McBride intended his meander line to define the contours of that water body. Cf. Jeems Bayou Fishing & Hunting Club v. United States, supra (an exception to the general rule applies where no body of water existed or exists at or near the place indicated on the plat).

BLM's argument that McBride's failure to describe topographical features at his meander points supports its position that he did not run his survey on the ground does not withstand scrutiny. BLM's Exhibit G-4 is a copy of McBride's field notes for his 1865 survey. Pages 43 through 73 describe all his meander lines in the township. Rarely is there a description of any topographic feature for any of those meanders, although McBride appears to have noted streams with some consistency, including a stream 20 links wide running southwest between meander points one and two in sec. 21. See Exh. G-4 at 44, 48, 56, 57, 58, 60-63, 66. Such a stream is depicted on the Government's exhibit G-14, a 1937 aerial photograph.

Lawyers Title's justification for the errors in McBride's survey follows the explanation for survey errors adopted by the court in Zager,

supra at 987. The court, citing Tuttle, Title to Wisconsin Lakelands Not Shown on the Government Plat, a paper presented to the Wisconsin Society of Engineers, February 16, 1928, discussed the history of surveys in Wisconsin in the mid-1800s, noting that surveys were rushed to completion to prevent timber trespass. The court further stated:

> "The surveyors are not to be held for these irregularities in general. It was the policy of the government to run meander lines in an approximate way. The land had little value, and the surveys were made as accurately as the price of land warranted. It little mattered if a tract ran outside the meander line; the cost of running a traverse around might have exceeded its value. Leaving swamps outside was of little consequence, since they were usually devoid of merchantable timber, and timber was presumed to be the only asset. (Surveyor General's Report to the Commissioner of the General Land Office, 1860.) The government was satisfied that the surveys were adequate enough for the purpose of conveying all of the land along the water courses, and the lands were patented without reservation." [Footnote omitted.]

Id. at 987-88, quoting Tuttle, supra at 4. In this case 30 to 33 percent of the omitted land is swamp or overflowed land with a significant amount of such land near the meander line run by McBride. Additionally, the Geological Survey topographical map of sec. 21 (Exh. G-2-A) shows a swamp running across the area where the omitted peninsula in lot 5 joins the main body of the section. Under these circumstances, we find that McBride intended to meander the actual shore of the lake, and that, in light of the conditions and expectations prevalent when he conducted his survey, his errors were not unreasonable.

B. Nature and Value of the Land at the Time of Survey

BLM contends, however, that the nature and value of the excluded land required McBride to conduct his survey with greater accuracy than he did. Apparently, BLM believes that, because gross error is tantamount to constructive fraud against the Government, the subjective value of the land to the Government is the proper basis for determining the value of the omitted parcel. At the hearing, BLM agreed that the primary value of the land in sec. 21 was for timber. See, e.g., Tr. II at 177. Throughout this proceeding, BLM has consistently characterized the omitted lands as 99.42 acres of timbered upland. See, e.g., Lawyers Title, supra at 172. Although BLM has not explicitly repeated this description on appeal, it continues to assert that the land supported a dense growth of established hardwood and conifer trees in 1937 and today. See SOR at 9. Lawyers Title argues that the evidence demonstrates conclusively that the omitted land was wild, remote, and valueless because it contained only scattered pine, the only resource of any value at the time.

The record amply supports Judge Sweitzer's finding that the omitted land, which consisted of 30 to 33 percent swamp with scattered stands of timber, was not, with the exception of lot 1, commercially valuable in

1865. See, e.g., Tr. I at 66-70 and Exh. R-17. BLM has failed to demonstrate that the omitted land was valuable for timber, or that it had any other characteristics which would have made it valuable either to the Government or the general public. In fact, by strenuously arguing the similarities between the omitted land and the surveyed land in 1865, BLM has implicitly accepted, as also descriptive of the value of the omitted land, McBride's conclusion in his 1864 field notes that the lands in sec. 21 contained poor soil and scattered, poor quality timber. See Exh. G-4 at 74. Thus, we conclude that BLM has not demonstrated that the value and character of the omitted lands rendered McBride's survey unreasonable or grossly erroneous.

C. Size of the Parcel Involved

Finally, BLM argues that Judge Sweitzer erred in concluding that the 40.6-percent understatement here did not constitute gross error. It initially notes that judicial guidance in omitted lands cases has not often been consistent, but contends that its review of the relevant case law reveals that, generally, gross error has not been found in cases involving land where precise surveys would be unusually difficult to perform, and involving understatements of less than 36 percent. BLM suggests, as it did before Judge Sweitzer, that Wisconsin case law gives guidance more specific to lands within that State. BLM relies on Zager, supra, in which the court analyzed two earlier Wisconsin cases, Schultz v. Winther, 10 Wisc.2d 1, 101 N.W.2d 631 (1960) (Schultz), and Brothertown, supra. BLM contends that these cases establish that an understatement of actual acreage must be substantially more than one-third to justify a finding of gross error, and that the 42-percent understatement in Brothertown is substantially more than one-third. BLM argues that the 40.6-percent understatement here is sufficiently close to the 42 percent in Brothertown to require the finding that gross error occurred. BLM also attempts to distinguish this case from those cases in which gross error has not been found and to highlight its similarities to Brothertown.

Lawyers Title submits that Judge Sweitzer's decision thoroughly analyzed the relevant precedent and refuted each argument made by BLM. Since BLM has presented no new points on this issue, Lawyers Title asserts that the Judge's decision should be affirmed.

We note that the court in Schultz, after reviewing various state and Federal decisions, characterized the 103.28 acres omitted in Brothertown as "the smallest area where constructive fraud has been found," and noted that "the 42 percent understatement in the Brothertown case appears to be one of the smallest" supporting a gross error determination. 10 Wisc.2d at 13, 101 N.W.2d at 639. These conclusions were cited by the Zager court in its gross error analysis, as well. 338 F. Supp. at 989. The court in Schultz, supra, also emphasized that no exact formula existed for determining when error in the running of a meander constitutes gross error. Thus, these cases do not establish Brothertown as the norm by which other omitted lands should be measured; rather, they clearly indicate that Brothertown marks the lower limit of the range of acreage and understatements within which courts have found gross error, after analyzing all the relevant factors present. The 40.6-percent understatement here is even smaller than the

42 percent recognized by the Schultz and Zager courts as one of the smallest understatements found by a court to indicate gross error. BLM has not convinced us that this lower limit should uncritically be lowered further to include smaller understatements, without considering other relevant factors.

Judge Sweitzer properly refused to mechanically apply the test espoused by BLM, i.e., if the amount of the understatement is near the 42 percent found in Brothertown, then gross error occurred. We find Judge Sweitzer's conclusion that Brothertown does not mandate a finding of gross error here to be fully supportable. His careful comparison of the facts of this case to those of Brothertown amply distinguishes this case from Brothertown, and demonstrates that, given the surrounding circumstances, McBride's failure to survey the excluded land was not gross error.

V. Conclusion

We have considered all the relevant circumstances surrounding this omitted lands controversy and the arguments raised by BLM on appeal, and we conclude that BLM has failed to establish that the land included in lots 5, 6, and 7 of sec. 21 was omitted from the 1865 survey because of gross error or fraud.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision of Administrative Law Judge Harvey C. Sweitzer is affirmed.

Bruce R. Harris
Administrative Judge

I concur:

Wm. Philip Horton
Chief Administrative Judge

APPENDIX A

[see ILLUSTRATION IN ORIGINAL]

APPENDIX B

Summary Of The Evidence

I. Lawyers Title's Case-In-Chief

Lawyers Title presented three witnesses and 24 exhibits during its case-in-chief. Frederic H. Copp, a licensed registered land surveyor, presented opinion testimony on the amount of acreage allegedly omitted and the appropriate basis by which to compare omitted versus included land. William H. Banzhaf, a forest resource consultant, presented opinion testimony on the character, quality, and value of the omitted land at the time of the original survey. Herbert J. Hansen, a section 21 resident and landowner, authenticated photographs depicting inland swamps and roads built to traverse them.

Mr. Copp's professional qualifications in support of his testimony are set forth at Tr. I 9-11. In addition to his professional qualifications, Mr. Copp has been a permanent resident of Vilas County since 1957 (Tr. I 11). He examined the subject area with Dr. David Michelson, a geologist, in the fall of 1986 (Tr. I 12).

Mr. Banzhaf's qualifications in support of his testimony are set forth in Exh. R-16, at Tr. I 59-62, and

at Tr. II 482-484. He has qualified as an expert witness in timber appraisal and management before the Indian Claims Commission, the United States Court of Claims, and the United States District Court (W.D. Wis.). He was employed as an expert witness in this case on behalf of Lawyers Title to prepare an estimate of the fair market value of the timber in section 21 at the time of the original survey (1865) (Tr. I 62-75; Exh. R-17). In connection with this assignment, he visited section 21 on April 2-3, 1987, to observe the topography and forest conditions present and to evaluate evidence of early pine stands.

Mr. Hansen resides within the newly surveyed area. He authenticated and described a set of panoramic photographs he took of the area (Tr. I 76-79; Exhs. R-20, R-21, and R-22).

By the close of its case in chief, Lawyers Title had established (prima facie) the following set of facts. James McBride's 1864 field survey was conducted on the ground by running lines first, along the boundaries of each section; next, clockwise along the margin of Crawling Stone Lake beginning on the south side of the lake; and finally, meandering the section 21 margin of the lake from south to north. The original surveyor intended the survey line on the west side of section 21 to be a meander line. The amount of land reported by the official survey of section 21 was approximately 305 acres.

The 1973 survey confirmed the approximate area within the section meandered. (Mr. Copp calculated that Mr. McBride's survey overstated the acreage in the section by 7.17 acres.) The new survey disclosed 99.42 acres in section 21 between the original meander line and the new meander line established along the shore of the lake.

The principal value of land in Wisconsin at the time of the original survey was for timber, particularly for pine. Section 21 yielded a fairly low volume (500-1,500 board feet per acre) of pine interspersed with birch, aspen and maple. Thus the vast majority of the section had a negligible value. An exception occurred in Lot 1 which yielded approximately 10,000 board feet per acre of pine. Section 21 contains many swampy areas and an interior swamp lake. The upland areas contain a mixture of aspen, birch, some maple, and a scattering of red pine and white pine. Mr. Banzhaf opined that the original stands (circa 1865) were "quite sparse in nature." (Tr. I 71).

Exhibits R-20 and R-21 depict swampland extending across the peninsula in Lot 5. The newly surveyed area is 30 to 33 percent swamp or overflowed land.

II. BLM's Case-In-Chief

At the 1988 reconvened hearing, BLM presented two witnesses and 35 exhibits in support of its case-in-chief. Louis D. Gilbert, a cadastral survey expert, testified concerning the execution of the 1973 survey and presented opinion testimony on the question of gross error. Steven G. Kopach, a riparian boundary specialist, testified that the allegedly omitted land was actually land in place at the time of the original survey. He also testified about the character and value of the land at that time.

Mr. Gilbert is the Chief, Branch of Cadastral Field Survey, Eastern States Office. In 1973, he was Chief, Branch of the Field Section in charge of the cadastral survey crews operating out of the Eastern States Office. He qualifies as an expert in cadastral surveying matters for the Department (Tr. II 23-28).

Mr. Gilbert himself prepared the 1973 Special Instructions for section 21, (Exh. G-8; Tr. II 108, 111). The basic guidelines for the 1973 survey are found in the 1947 Manual, which was the manual in effect at the time the special instructions for the survey were drafted (Tr. II 56).

Mr. Gilbert was responsible as well for assigning the surveyor (Tr. I 115). He visited the crew, performed field inspections, and had telephone contact with the crew at least once a week (Tr. I 115-16). He asserted that the field work, particularly the retracement of section lines and reestablishment of the original meander line, complied with the manual in effect and with the special instructions (Tr. II 116).

Mr. Gilbert reviewed the formal field notes (Exh. G-8) for technical sufficiency and also supervised the drafting of the plat (Exh. G-9). His opinion was that the field notes and plat met the requirements of the manual and the special instructions (Tr. II 119-122).

Mr. Gilbert compared the 1865 plat and field notes (Exhs. G-1 and G-4) to Geological Survey quadrangle maps of Fence Lake and Lac du Flambeau (Exhs. G-2 and G-3). Using an illustrative overlay (Exh. G-5), Mr. Gilbert demonstrated that the meander line depicted in the original plat lies a significant distance from the actual lake shore of Crawling Stone Lake (Tr. II 44, 48). He referred to the original field notes to ascertain whether deviations or obstacles in meandering were encountered. If obstacles had been encountered, the manual instructions in effect at the time of the original survey required the surveyor to record them

in the field notes. The field notes filed in 1865 show no record of obstacles (Tr. II 4).

In relation to omitted lands, the instructions required the surveyors first to assess whether the alleged omitted lands were in place at the time of the original survey. If this is determined and the land is similar in character to lands originally surveyed, the usual presumption of the original survey's correctness may be set aside (Tr. II 110). The surveyors were instructed to study the characteristics of the land, including soil, timber, vegetation, and elevation. Id. In addition to these factors, the size of the area excluded and whether the meander line fails to reasonably approximate the actual shore line also help to determine whether "gross error" in the original survey has occurred (Tr. II 114).

Because it appeared that a portion of land went unsurveyed, BLM performed a dependent resurvey (retracement of section boundaries) and omitted lands survey (survey of area between new and re-established original meander line) (Tr. II 55).

Mr. Gilbert evaluated Mr. McBride's meander line in accordance with the 1864 printed instructions (Exh. G-C). He asserted that at one point Mr. McBride's meander line would be as much as 35 chains (approximately 2,300 feet) from the actual shore (Tr. II 124-25). 7/ When asked whether Mr. McBride's meander line closed in accordance with the special instructions, Mr. Gilbert replied that it did (Tr. II 126, see also Tr. II 130-31). Mr. Gilbert further "surmised" that Mr. McBride performed a mathematical closure as opposed to an actual meandering of the shore line (Tr. II 126). Even given the lesser degree of accuracy required by the 1864 instructions, Mr. Gilbert's opinion was that the field notes and plat from the 1865 survey on record are grossly erroneous (Tr. II 131). Mr. Gilbert admitted, however, on cross-examination that (reasonable) cadastral surveyors could disagree with his ultimate conclusion that the 1865 survey of the east shore of Crawling Stone Lake constitutes gross error (Tr. II 145).

7/ Mr. Gilbert's calculation of the distance between the record and resurveyed meander lines (35 chains/2,300 feet) was measured from the tip of the peninsula in an east-northeasterly direction (Tr. II 173). My own calculation with a ruler on Exh. G-12-A using its scale discloses that the tip of the peninsula is approximately 1,800 - 1,850 feet from the nearest point on the original meander line and approximately 1,875 feet from angle point 9.

When asked if the 1864 and 1973 meander lines were similar if one ignored the peninsula portion of new government lot 5, Mr. Gilbert acknowledged that "[I]n some respects there are general similarities" (Tr. II 164). When questioned about the character of the peninsular land, Mr. Gilbert conceded only that "[T]here are swampy areas" along the lake shore (Tr. II 165).

Mr. Kopach's position at the time of the 1988 hearing was Land Surveyor and Riparian Boundary Specialist, BLM, Division of Cadastral Survey. He is a registered surveyor in both Indiana and Arizona and a certified photogrammetrist (one who makes reliable measurements from photographs). He had been employed by the Department of the Interior for 12 years and had previously testified in approximately six water boundary cases. Mr. Kopach was offered as an expert in the area of riparian boundaries and cadastral surveys. Ruling on the extent of his expertise in these and related areas was reserved (Tr. II 276-81).

In 1973, while he was a cooperative education student, Mr. Kopach participated as a member of the Crawling Stone Lake survey field crew as a survey technician (Tr. II 281). He also performed a field inspection of the subject area in July-August 1987 (Tr. II 331) and reviewed the plats and field notes of the 1864 and 1973 surveys. In addition, Mr. Kopach recently reviewed Geological Survey maps for information concerning soil, vegetation, and elevation.

Mr. Kopach compared the soil types found on either side of the adjusted original meander line. He testified that the same types of soil were found on both sides of the line (Tr. II 299) and that the soil configuration is not consistent with any formation resulting from accretion or reliction. Id. Soil type 714, designating swampy areas, was found on both sides of the record meander line. There are some soils found on the omitted land which are not found on the included land (Tr. II 422; Exh. G-12-A).

Mr. Kopach testified that the elevation of land on both the surveyed and omitted portions of section 21 ranged from 1,584 feet to 1,600 feet:

> * * * [T]his land is undulating up and down, going from the lake there is some swamps as indicated on this particular map and on the quadrangle maps. It would go up to a higher elevation and lower elevation throughout the entire omitted land area. That would correspond exactly to the configuration of the originally surveyed section of 21.

(Tr. II 319; Exh. G-2-A). Mr. Kopach asserted that the omitted land could not have been previously covered with water. "If that were such a case we would find that the majority of Section 21 that was originally purported in the survey of 1865 would also be under water. Because there is only a few areas within Section 21 that is above the 1590 foot level." (Tr. II 323).

Mr. Kopach also presented photographs of the vegetation found on both sides of the record meander line (Exhs. G-13-A through G-13-Q) and interpreted an aerial photograph taken in 1937 (Exh. G-14; see also Tr. II 351, 364-366, 379). He concluded that "there is no difference in vegetation comparing the originally surveyed portion, Section 21, to the omitted land survey portion surveyed in 1973" (Tr. II 321), and that the omitted land "was land in place at the time of the original survey in 1865, and at all subsequent dates" (Tr. II 372).

Mr. Kopach asserted that there was no evidence that Mr. McBride's meander line was ever a bank or shore line (Tr. II 372-73). Furthermore,

> * * * [T]he meander corners that were originally called for in McBride's survey of 1865 were unlocatable. And our record indicated that there [sic] were unlocatable because of the fact that their present position, now both of them on the north boundary line between Sections 16 and 21, and the South meander corner between Sections 21 and 28, both fall in the waters of Crawling Stone Lake.

(Tr. II 373). Mr. Kopach proffered this explanation: "There was something that affected the lake level that would have obliterated Mr. McBride's corners" (Id.).

Mr. Kopach testified that based upon historical records (Exhs. G-16 through G-20) and his analysis of lake survey maps prepared by the Wisconsin Department of Natural Resources (WDNR) (Exhs. G-17 and G-12B) the level of Crawling Stone Lake is now as much as 3 feet higher than in 1865 (Tr. II 396-399). See also Exhs. G-13-H through G-13-N, and G-13-P and G-13-Q. He calculated that the area omitted at the time of the original survey was approximately 13 acres more than the 99.42 reported by the 1973 survey (Tr. II 404, 444).

Using the original plat (Exh. G-1) and the USGS maps of the area (Exhs. G-2 and G-3), Mr. Kopach traced Mr. McBride's meandering route as described by his field notes:

> * * * [I]t was interesting to note that when he meandered Crawling Stone Lake he started on the western shore of Crawling Stone, on the east shore of section 19, and on the west bank of Crawling Stone Lake. He proceeded in the meandering of Crawling Stone in a clockwise direction, proceeding with the survey in section 19, through section 18, around into section 17, through section 16, and he stopped at the meander corner between 16 and 21, on the north boundary of section 21. Then his record jumps back to his point of beginning, in section 19, and he continues with the meander of Crawling Stone Lake in a counter clockwise direction, continuing in section 19, around into section 20, identifying a large peninsula, continuing around in section 29, into section 28, around a small peninsula, and continuing up to the meander corner of section 21 and 28. From this position, he then reported the meanders of section 21 to its closing on the meander corner that he had previously established. When one were to take this exhibit, G-1, and compare it to the location of the topographic maps previously marked as G-2 and G-3, it can be noted that for the most part Mr. McBride accurately portrayed the configuration of Crawling Stone Lake in referring to the shape of Crawling Stone, section 19 is located in this area here, in the center of G-3, the Lac du Flambeau quadrangle. Here he continued around in his clockwise position, along Crawling Stone, into the quadrangle map, G-2, labeled Fence Lake, to the north meander corner between section 16 and 21 on the north boundary of the section. Again, returning, he came from the -- his original point of beginning, starting meandering section 19 and out. He meandered the peninsula in section 20. Continuing his meanders through section 29 and 28 on Exhibit G-3, and on to Exhibit G-2, section 28, to the point of the meander corner between sections 21 and 28 on the south boundary. From this point, for no explicit reason, he omitted a certain portion of land that for no reason other than his benefit, that we can see, did not portary a portion of land. He was very accurate in his depiction of a peninsula in section 20, but for any reason I cannot determine why he would omit such a peninsula in section 21.

(Tr. II 405-06; see also Tr. II 447-449). Mr. Kopach admitted, however, that the directions taken by the 1864 survey crew in meandering were not unusual (Tr. II 449)

and that the meander line depicted by Mr. McBride closed within the required degree of accuracy (Tr. II 408).

Mr. Kopach at one point asserted his opinion that Mr. McBride's meander line was fictitious, closed mathematically on paper, and that Mr. McBride had never actually run the meander line (Tr. II 409). Later, Mr. Kopach was asked: "[A]re you testifying, and have you testified throughout that what Mr. McBride was attempting to do was to closely define the sinuosities of the east shores of Crawling Stone Lake when he meandered Section 21?" Mr. Kopach responded: "Yes, sir." (Tr. II 424.)

The WDNR maps of the area have a legend including a symbol for stumps, but they do not indicate any stumps in the area (Tr. II 425; Exh. G-17). Mr. Kopach identified the submerged stump in Exhibit G-13-I as a pine stump. He based this conclusion on his visual inspection of the root structure, a chip sample, and the fact that the stump had not rotted after having been under water "for a period of time" (Tr. II 426). The stump was not analyzed scientifically. Id.

Mr. Kopach considered the evidence of submerged stumps to be a factor in his determination of the rise in Crawling Stone Lake's water level. He stated that one stump found off the island in the lake "presumably grew there" but he could not say for a fact how it got there (Tr. II 430). Mr. Kopach was asked if he could determine whether the stumps he observed in the lake were affixed to the bottom. He responded as follows:

> Well, in looking at the stumps we tried to see if they were firmly attached to the bed of the lake, and trying to move them by hand, myself and another gentleman, they seemed to be firmly entrenched, attached to the bed, and we were unable to dislodge them from their positions.

(Tr. II 473).

Mr. Kopach admitted that he did not know why the stumps were difficult to move and that the addition of fill material in the lake bed was a possible cause (Tr. II 477-78).

No stumps were observed in 1987 in the vicinity of the location of the original meander corner between sections 21 and 16, but approximately 4 to 5 stumps had been observed there in 1973 (Tr. II 430-31). The presence of these stumps, however, was not reflected anywhere in the 1973 field notes (Tr. II 431). No stumps were sought in 1973

off Government lot 7. Id. Stumps were sought in 1973 in the vicinity of the meander corner between sections 21 and 28 but none were found (Tr. II 432).

No scientific method was used to classify the stump depicted in Exh. G-13-D as "ancient"--just observation (Tr. I 453). Mr. Kopach emphasized the stump's state of decay and its position in relation to other trees as the criteria used to determine that the stump was "ancient" (Tr. II 454) which he defined as over 150 years old (Tr. II 453).

Another factor considered by Mr. Kopach in his determination of gross error was the value of land at the time of the original survey (Tr. II 460). Mr. McBride's description in the 1864 field notes (Exh. G-4) stated: "This township contains a large number of lakes. Many of them of large size. The water being clear and deep. The soil is of a poor quality consisting of sandy barrens, and but little of the township is fit for cultivation. The timber is of poor quality and scattered" (Tr. II 463). In contrast, the 1973 field notes (Exh. G-8) attest that "[n]umerous decayed stumps are mute evidence that the omitted uplands were once covered with a fine stand of old growth of Norway and White Pine" (Tr. II 464). Mr. Kopach conceded that the surveyors' observation of decayed stumps was the only basis relied upon in determining that a fine stand of old growth had existed (Tr. II 466). He further agreed that the predominant tree growth in the area consists of pine, birch, aspen, and maple. Id. He did not agree, however, that this combination reflects an open stand (Tr. II 467). He did agree that white birch requires sunlight to grow and that it could not have grown as it had if the stand had been a heavily closed stand. Id.

III. Lawyers Title's Rebuttal

Lawyers Title presented three witnesses and three exhibits in its rebuttal of BLM's case-in-chief. William Banzhaf, the forest resource consultant who had testified in Lawyers Title's case-in-chief, gave further testimony about the number and significance of tree stumps found in section 21. William Yeschek, a section 21 resident testified about the submerged stumps and about filling activity on the allegedly omitted land. Finally, Dr. David Michelson, a geomorphologist, testified about the formation and water level of Crawling Stone Lake. In addition, he gave testimony concerning the processes of accretion and erosion and their possible impact on the land in section 21.

Mr. Banzhaf testified concerning his April 1987 observations of tree stumps and professional conclusions about them. "There may have been several, but very, very few" (Tr. II 484). He personally viewed "perhaps a half a dozen stumps" on the omitted land and "scattered pine stumps" throughout the acreage of the interior portion of section 21 (Tr. II 485). He asserted he knew of no evidence to indicate that the "fine stand of old growth Norway and White Pine" suggested in the 1973 field notes (Exh. G-8) ever existed (Tr. II 485-486). To the contrary:

> The 1864 field notes indicated both from the witness trees that were selected to monument corners as well as the general description of the property that the forest consisted of scattered pine mixtures of that, of aspen and birch.
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> * * * * * *
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> Aspen and birch are what is referred to as intolerant species. They are intolerant to shade. They require open sunlight for regeneration and growth. Therefore, a stand described as having mixtures of aspen and birch in addition to pine would reflect basically a stand of pine that would have to be scattered in nature.

(Tr. II 488-89).

Mr. Banzhaf conceded that if there were stumps on the ground in 1973 already in an advanced state of decay, it is possible that 15 years later they might not be locatable (Tr. II 493). He estimated the current stand of aspen and birch to be anywhere from 30-85 years old and not more than 100 years old (Tr. II 494). He conceded that the stand could have grown after logging had taken place.

William Yeschek is a Wisconsin attorney and real estate broker, however his familiarity with section 21 is personal in nature:

> I was raised in Lac du Flambeau on Big Crawling Stone Lake from the time I was one year old until two years ago. And I am now 66 years old. I either lived on Big Crawling Stone Lake, or Interlocken Lake next door, except for three and a half years in the service.
>
> * * * * * *

> * * * [A]t the age of about 12 years old I started guiding for fishing and hunting. And most of my fishing was on Big Crawling Stone Lake, or the Flambeau chain, and I think I am familiar with it, almost every foot around the shoreline.

(Tr. II 499, 500). Mr. Yeschek marked on Exh. R-24 (plat map) the locations of approximately 11 stumps he had observed in Crawling Stone Lake. He also indicated various locations at which, to his personal knowledge, filling activity had taken place (see Exh. R-24). He testified that his predecessor in title filled during the mid to late 1960's by taking sand out of the lake, whereas he and his neighbors filled from a sand pile (Tr. II 503-504). He stated that there had been extensive filling on the lots and in connection with the construction of roads (Tr. II 504-505, 507-508). Trees were removed to facilitate construction of the roads but they were not a major obstacle (Tr. II 514). No "older stumps" were removed (Tr. II 515).

Dr. David M. Michelson is a full professor and department chairman of geology and geophysics at the University of Wisconsin, Madison campus, where he has been employed since 1971. He received his A.B. in geography from Clark University (1966), his M.S. in geology from the University of Maine (1968), and his Ph.D. in geology from Ohio State University (1971). His masters thesis concerned the development of peat bogs in former glacier lake depressions. In his capacity as a professor, Dr. Michelson supervised a Ph.D. student who studied all of the surface materials in Vilas County (Exh. R-33; see also Tr. II 523-525). He was engaged to determine ordinary high water marks for the State of Wisconsin in five or six cases previous to this one (Tr. II 526). He visited the Crawling Stone Lake area in the fall of 1986 and in April of 1987 (Tr. II 526). Dr. Michelson ascertained the ordinary high water level for Crawling Stone Lake to be approximately 6 inches higher than what he observed in April 1988 (Tr. II 527-528) and approximately 6 inches higher than the level indicated in a survey report dated April 29, 1988, which put the lake level at 1,583.68 feet (Exh. R-34). He asserted that there was no evidence to indicate that the water control structure at Lac du Flambeau had affected the water level of Crawling Stone Lake since 1864 (Tr. II 529). He further testified that the control structure has also not had any significant effect on the configuration of the shoreline of Crawling Stone Lake (Tr. II 530-31).

Dr. Michelson corroborated Mr. Yeschek's testimony concerning the existence of a few stumps off the coast of new Government lot 7 (Tr. II 531). He attributed their

existence under water to erosion rather than any change in the level of the lake (Tr. 531-532).

Dr. Michelson testified that Crawling Stone Lake was formed as a result of glacial movements and that some of the shoreline was formed by accretion (Tr. II 533-534). He indicated on Exh. R-19 the approximate stretches of shoreline and other areas he believed to have been formed by accretion. The areas other than the shoreline, which Dr. Michelson indicated accreted at some point in time, had been, in his opinion, either within the waters of Crawling Stone Lake or connected to the lake but not part of it (Tr. II 541). The only time frame within which he could determine the accretion occurred was "since the lake formed" some 10,000 years ago (Tr. II 536). He emphasized that accretion is a continual process and that no one can say with any certainty when accretion occurs (Tr. II 537, 538-539, 542). The only exception to the continual accretion rule would be that if trees were growing on the land, the land would have to be older than the trees (Tr. II 537, 538-539).

Asked what would happen to the water level of Crawling Stone Lake if the Lac du Flambeau dam were removed, Dr. Michelson speculated that the water level in the lake would drop some, but not more than one foot because the water level in Crawling Stone Lake is controlled by the culvert connecting the lakes and not by the dam (Tr. II 544).

Dr. Michelson placed significance on the species of tree stumps found in and around the omitted land because some trees grow in wet areas and other trees do not:

> [I]f the stumps were oak, or large White Pine, or other trees that typically don't grow in wet areas, that -- I think -- I would say that that is a significant difference from being tamarak [sic] or black spruce or those kind trees.
>
> * * * * * *
>
> * * * [B]lack spruce or tamarak [sic] are trees that one typically sees on spagnam peat bogs, and in wet areas. In fact are present in the southern part of the omitted area in sections. In Government [sic] Lot 1. 8/

8/ Dr. Michelson's reference is evidently to Fisher's Lot 1 in BLM's new Lot 7. See Exhs. R-24 and G-2-A; see
(continued...)

(Tr. II 546-47). He sent stump samples to the U.S. Department of Agriculture Forest Products Laboratory for analysis. The stumps taken from Crawling Stone Lake and neighboring areas were either tamarack, spruce, or larch but not pine (Tr. II 549; Exh. R-35). The stumps could not be dated for age by scientific method (Tr. II 550). Dr. Michelson could not ascertain whether the stumps were in existence at the time of the original survey (Tr. II 550-51). His professional opinion was that the greater portion of section 21 was formed prior to 1865 (Tr. II 563).